

Work Order ID 141242

Tuesday, February 02, 2016 12:54:05 PM



141242

PRELIMINARY

Page 1

Item ID: D5394-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: PRELIM Stop ***NS2***
 Item Name: Drag Bracket Assembly
 Start Date: 2/2/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 2/5/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: [Signature] Date: 16-2-2 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty.	Reject Qty.	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	----------------	----------------	------------------	----------------

Draw Nbr	Revision Nbr
D5394	A4 ^{DAS} 9-89 <u>Rev A</u>

110 Weld per dwg A/R S.S. rod Batch: 1123823 0.00
110
 Large Fab Memo 0.00
 Large Fab

120 QC9- Inspect visual per QSI004- Fusion Welds 0.00
120
 QC Memo 0.00
 Quality Control

130 QC5- Inspect part completeness to step on W/O 0.00
130
 QC Memo 0.00
 Quality Control

SCRAP
 part was not return

1 EL 16-2-3
1 ^{DAS} **43** 9-89 **FEB 03 2016**
1 ^{DAS} **43** 9-89 **FEB 03 2016**

DQA:

Date: 16.04.14



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: 16/03/21

Work Order update only ☐

Work Order: <u>141242</u> Part No. <u>D5394-041</u> NCR No. <u>16-5666</u>	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☒</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☒	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☒																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																		
Large Fab ☐	Composite ☐	Supplier ☐																			
Date: <u>16/2/9</u>	Step #: <u>110</u>	QTY Effective: <u>1</u>		MRB (QSI042) Approval DAS 12 9-89 <u>16/2/9</u>																	
Description Work Order Deviation		Disposition		Completed By DAS 12 9-89 <u>16/2/9</u>																	
D5394 Rev.A calls for weld on both sides of bushing. Part has weld on one side only. R.C part will be use for testing. weld won't affect test		Acceptable per D.S. email		Lead hand / Supervisor Approval Verification DAS 9 9-89 <u>16-03-15</u>																	
QC / QA Coordinator Approval DAS 9 9-89 <u>16-03-15</u>																					
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ ☒ Use for Testing Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ ☒ Fit/Function Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
		OTHER: ☐																			

Work Order ID 141242

141242

Page 2

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Item ID: D5394-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: PRELIM Stop ***NS2***
 Item Name: Drag Bracket Assembly
 Start Date: 2/2/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 2/5/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 *140* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel Memo <u>M130729.</u> ***MASK HOLE AS PER NOTE 8 PRIOR TO POWDERCOAT*** START TIME: <u>7:20.</u> OVEN TEMP: <u>400°</u> FINISH TIME: <u>7:50.</u>	0.00 0.00				<u>1</u>	<u>0</u>	<u>16-02-4.</u>	DAS 34 9-89
150 *150* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				<u>①</u>			DAS 38 9-89 FEB 04 2016
160 *160* Packaging Packaging	Identify as per dwg & Stock Location: <u>PRELIM</u> Memo	0.00 0.00							DAS 38 9-89 FEB 04 2016

POSITIVE RECALL
 EFFECTIVE 16-2-2 AUTH [Signature]
 RELEASED 9 DATE 1603-16
 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

Work Order ID 141242***141242***

Page 3

Tuesday, February 02, 2016 12:54:05 PM

Item ID: D5394-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: PRELIM Stop ***NS2***
Item Name: Drag Bracket Assembly
Start Date: 2/2/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 2/5/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							
Quality Control									

MW MAR 16 2016

MW FEB 09 2016

1

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Tuesday, February 02, 2016 12:54:11 PM

Page 1

141242

D5394-041

Required Date: 2/5/2016

Required Qty: 1.00

Comments: IPP REV:A 16.02.01 NEW ISSUE DD VERF:JLM

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

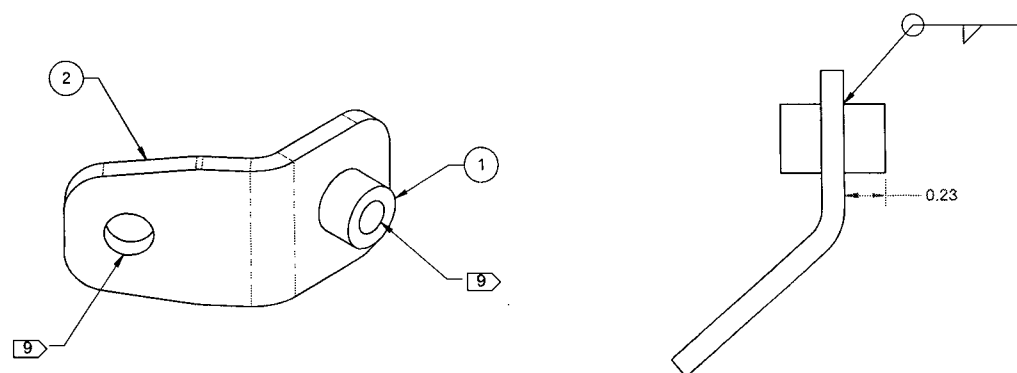
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

ITEM	QTY .041	P/N	DESCRIPTION
	X	D5394-041	BRACKET ASSEMBLY
1	1	D5394-1	BUSHING
2	1	D5394-3	BRACKET



D5394-041 BRACKET ASSEMBLY

PRELIMINARY ISSUE

16.02.02 KJ

NOTES:

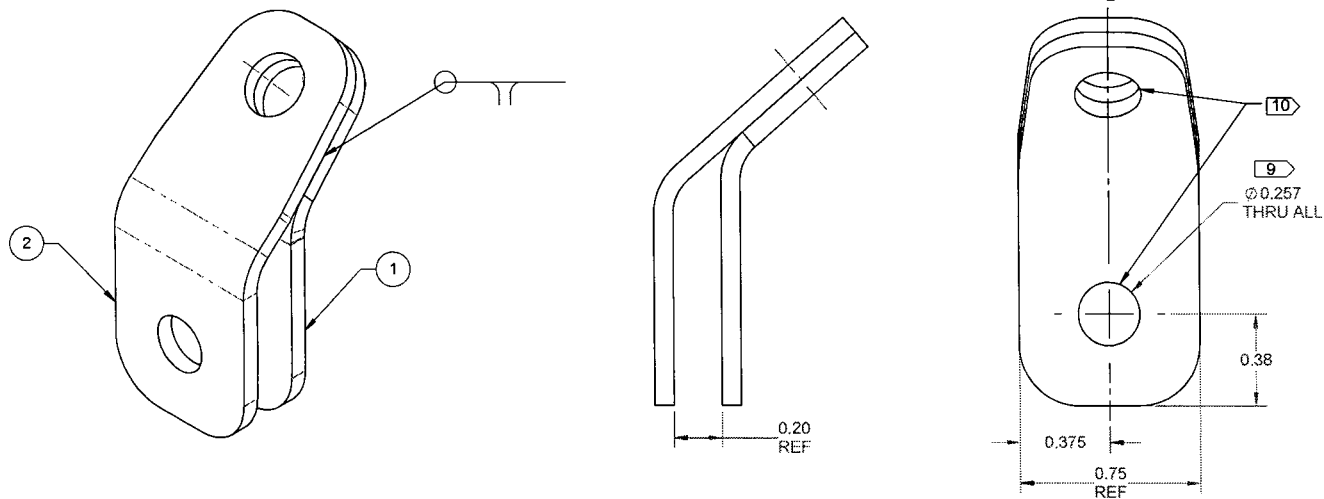
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.07 lbs
- 8) WELD PER DART QSI 004
- 9) MASK HOLES PRIOR TO POWDER COAT

Handwritten signature and date: 16.2.2

UNAPPROVED

A	NEW ISSUE	RF	16.01.27
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VS	DRAWING NO.	REV. A4
MFG. APPR.	DD	D5394	SHEET 1 OF 6
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
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ITEM	QTY -043	P/N	DESCRIPTION
	X	D5394-043	BRACKET ASSEMBLY
1	1	D5394-5	BRACKET
2	1	D5394-7	BRACKET



D5394-043 BRACKET ASSEMBLY

PRELIMINARY ISSUE

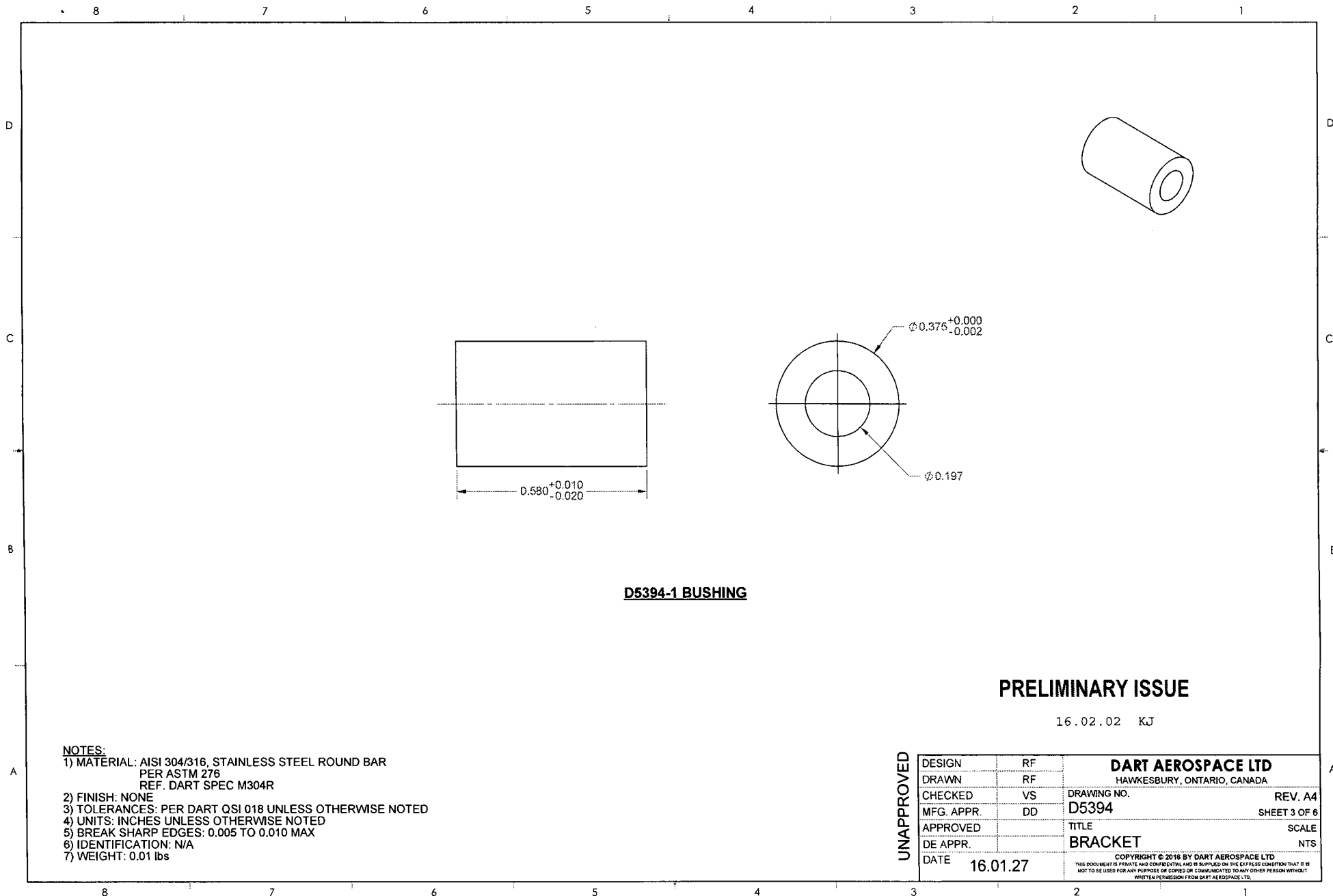
16.02.02 KJ

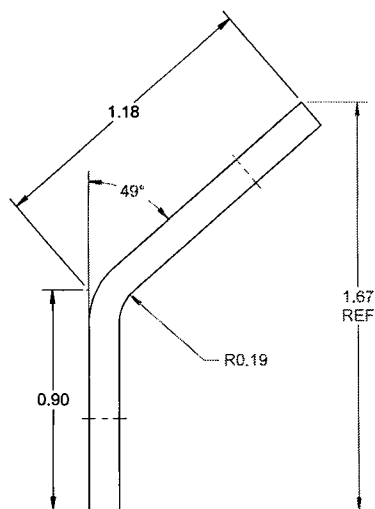
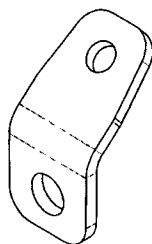
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.05 lbs
- 8) WELD PER DART QSI 004
- 9) DRILL AFTER WELDING
- 10) MASK HOLES PRIOR POWDER COAT

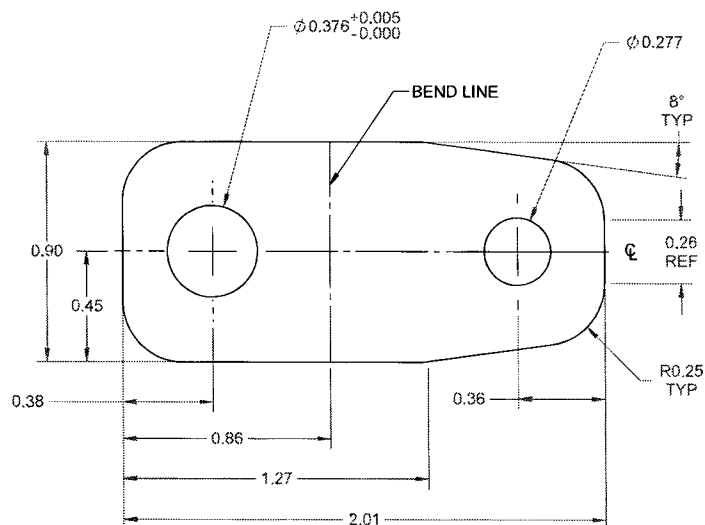
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DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VS	DRAWING NO.	REV. A4
MFG. APPR.	DD	D5394	SHEET 2 OF 6
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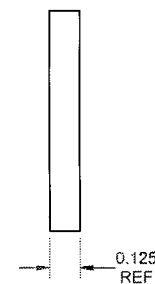




D5394-3 BRACKET
(MAKE FROM D5394-3F)



D5394-3F FLAT PATTERN



PRELIMINARY ISSUE

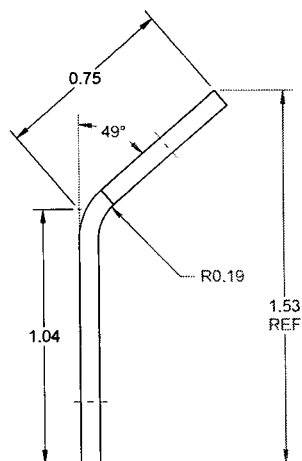
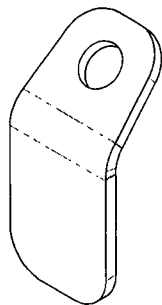
16.02.02 KJ

NOTES:

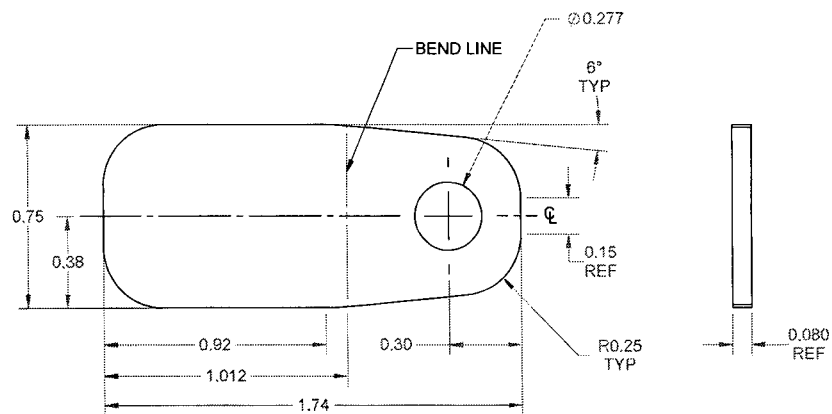
- 1) MATERIAL: AISI 303/304/316 STAINLESS STEEL SHEET, 0.125 THK, ANNEALED 2B FINISH
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240
REF. DART SPEC M304S11GA OR M303S11GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.05 lbs

UNAPPROVED

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VS	DRAWING NO.	REV. A4
MFG. APPR.	DD	D5394	SHEET 4 OF 6
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
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D5394-5 BRACKET
(MAKE FROM D5394-5F)



D5394-5 FLAT PATTERN

PRELIMINARY ISSUE

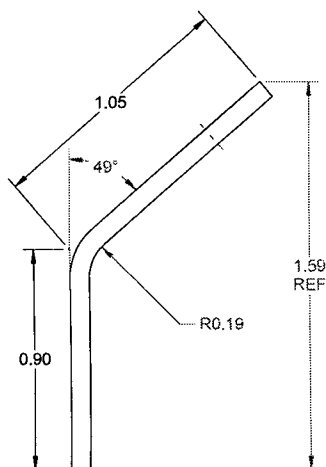
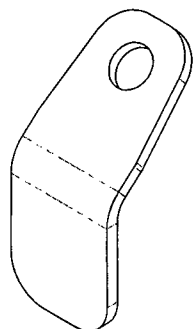
16.02.02 KJ

NOTES:

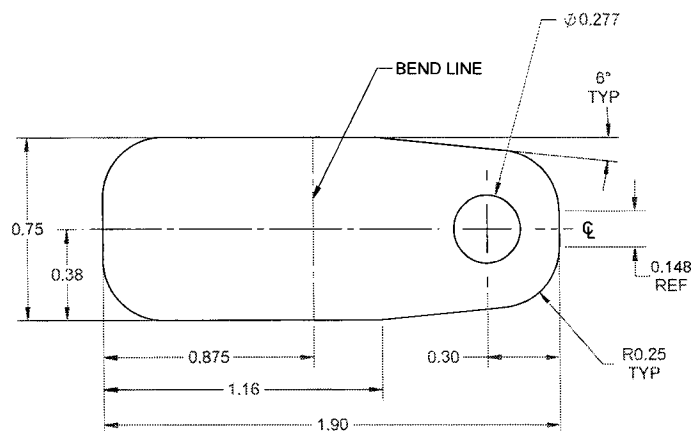
- 1) MATERIAL: AISI 303/304/316 STAINLESS STEEL SHEET, 0.080 THK, ANNEALED 2B FINISH
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240
REF. DART SPEC M304S14GA OR M303S14GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.03 lbs

UNAPPROVED

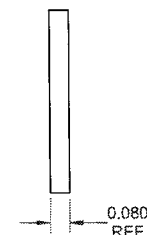
DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VS	DRAWING NO.	REV. A4
MFG. APPR.	DD	D5394	SHEET 5 OF 6
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
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D5394-7 BRACKET
(MAKE FROM D5394-7F)



D5394-7 FLAT PATTERN



PRELIMINARY ISSUE

16.02.02 KJ

NOTES:

- 1) MATERIAL: AISI 303/304/316 STAINLESS STEEL SHEET, 0.080 THK, ANNEALED 2B FINISH
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240
REF. DART SPEC M304S14GA OR M303S14GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.03 lbs

UNAPPROVED

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VS	DRAWING NO.	REV. A4
MFG. APPR.	DD	D5394	SHEET 6 OF 6
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
DATE	16.01.27	COPYRIGHT © 2016 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Patrick Smith

From: Mario Poulin
Sent: February-09-16 1:09 PM
To: Patrick Smith
Cc: Sian Willems
Subject: FW: D5394-041 (ecn16-520)

See below, would like to ship today if possible,

Kit is in shipping

From: Harvey Siemens
Sent: Tuesday, February 09, 2016 1:06 PM
To: David Duval <dduval@dartaero.com>; Roberto Fuentes <rfuentes@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>
Subject: RE: D5394-041 (ecn16-520)

David,

It's good the way it is! You can use this email if you like to sign off the deviation.

Regards,
Harvey Siemens
Director of Engineering – Calgary/Technical Support

DART AEROSPACE
T 1 403 717-0328 > 402
M 1 403 512-4099
www.dartaerospace.com



From: David Duval
Sent: February-09-16 10:07 AM
To: Roberto Fuentes <rfuentes@dartaero.com>; Harvey Siemens <hsiemens@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>
Subject: RE: D5394-041 (ecn16-520)

We need an answer "ASAP" please.

DAVID DUVAL
Production Engineering Coordinator

From: David Duval
Sent: February-09-16 9:40 AM
To: Roberto Fuentes <rfuentes@dartaero.com>; Harvey Siemens <hsiemens@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>
Subject: D5394-041 (ecn16-520)

When we made D5394-041 the bushing was welded on side as per the prelim dwg.

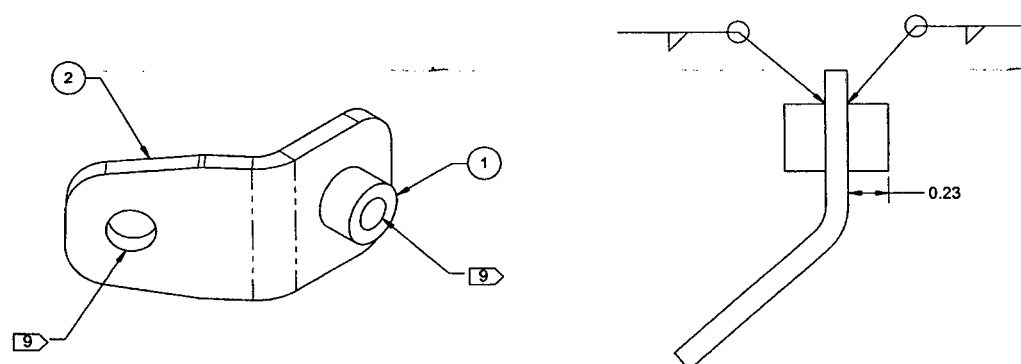
The bracket is powdercoated.

Could we make a deviation or we need to re-work the part?(strip the powdercoat off, the weld the other side and re-powdercoat)

DAVID DUVAL

Production Engineering Coordinator

ITEM	QTY -041	P/N	DESCRIPTION
	X	D5394-041	BRACKET ASSEMBLY
1	1	D5394-1	BUSHING
2	1	D5394-3	BRACKET



D5394-041 BRACKET ASSEMBLY

NOTES:

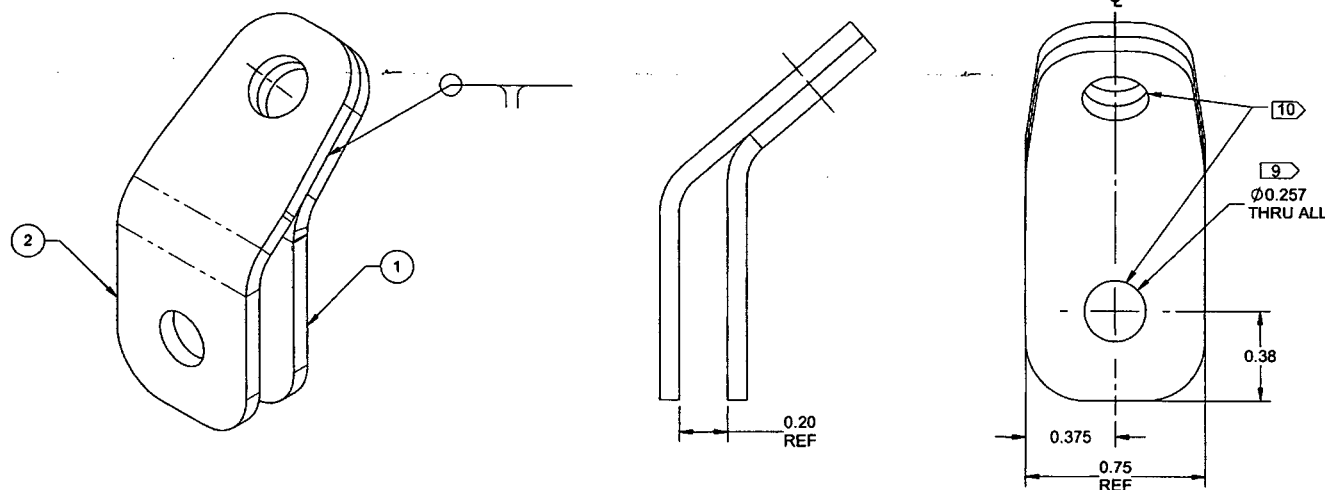
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.07 lbs
- 8) WELD PER DART QSI 004
- 9) MASK HOLES PRIOR TO POWDER COAT

RELEASED
2016-02-08
EN 16-520

APPROVED

A	NEW ISSUE	RF	16.01.27
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	VS	DRAWING NO.	REV. A
MFG. APPR.	DD	D5394	SHEET 1 OF 6
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	BRACKET	NTS
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ITEM	QTY -043	P/N	DESCRIPTION
	X	D5394-043	BRACKET ASSEMBLY
1	1	D5394-5	BRACKET
2	1	D5394-7	BRACKET



D5394-043 BRACKET ASSEMBLY

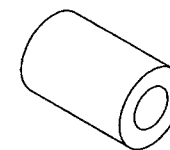
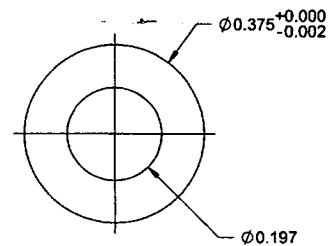
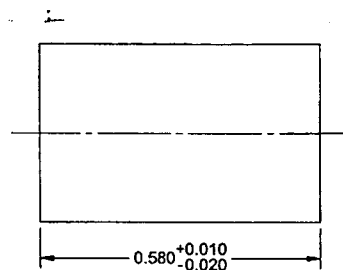
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.05 lbs
- 8) WELD PER DART QSI 004
- 9) DRILL AFTER WELDING
- 10) MASK HOLES PRIOR TO POWDER COAT

RELEASED
2016-02-08

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D5394-1 BUSHING

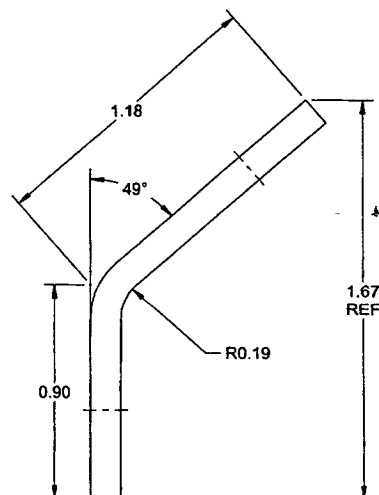
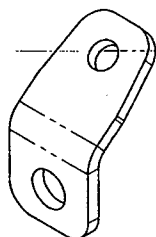
NOTES:

- 1) MATERIAL: AISI 304/316, STAINLESS STEEL ROUND BAR
PER ASTM 276
REF. DART SPEC M304R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.01 lbs

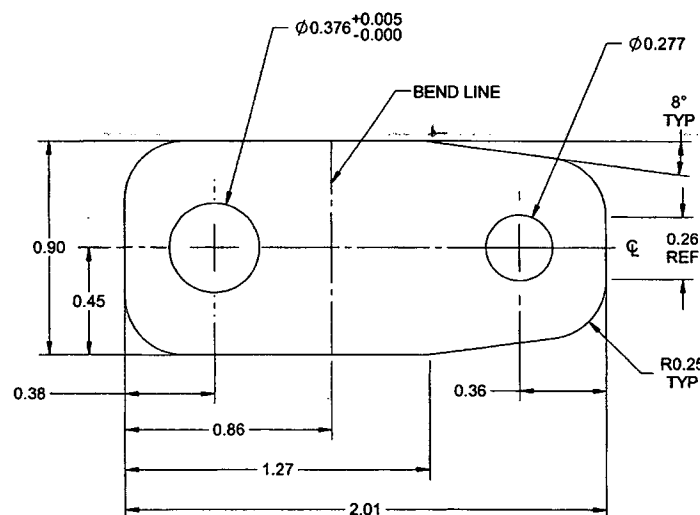
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2016-02-08

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MFG. APPR.	DD	D5394	SHEET 3 OF 6
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D5394-3 BRACKET
(MAKE FROM D5394-3F)



D5394-3F FLAT PATTERN

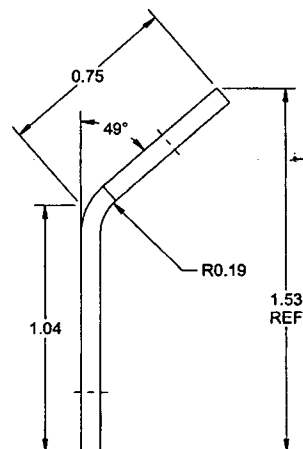
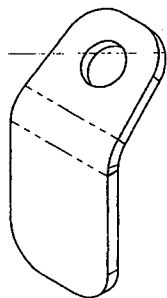
NOTES:

- 1) MATERIAL: AISI 303/304/316 STAINLESS STEEL SHEET, 0.125 THK, ANNEALED 2B FINISH
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240
REF. DART SPEC M304S11GA OR M303S11GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.05 lbs

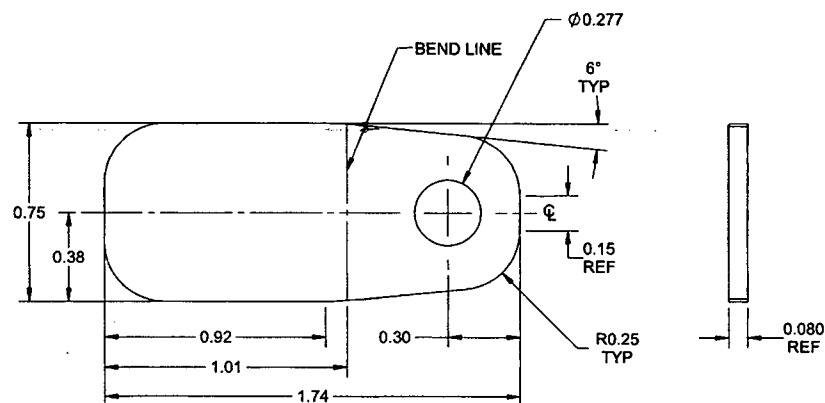
RELEASE
2016-02-08

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MFG. APPR.	DD	D5394	SHEET 4 OF 6
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D5394-5 BRACKET
(MAKE FROM D5394-5F)



D5394-5F FLAT PATTERN

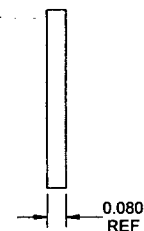
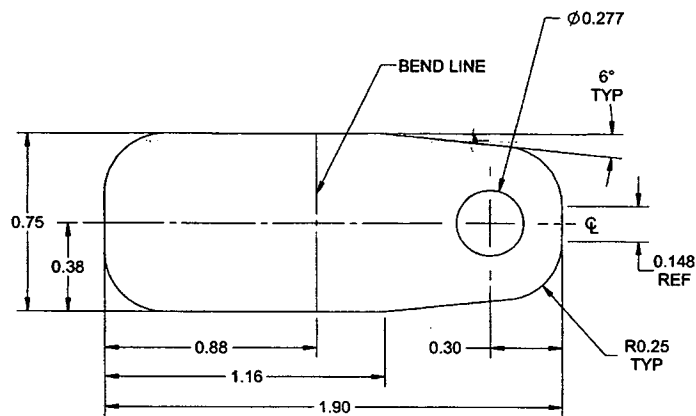
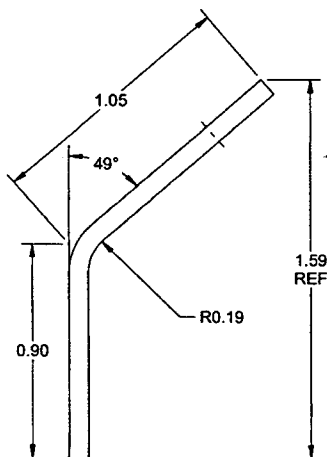
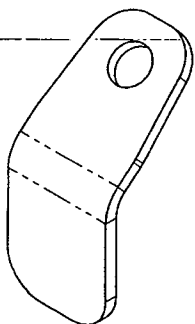
NOTES:

- 1) MATERIAL: AISI 303/304/316 STAINLESS STEEL SHEET, 0.080 THK, ANNEALED 2B FINISH
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240
REF. DART SPEC M304S14GA OR M303S14GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.03 lbs

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2016-02-08

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D5394-7F FLAT PATTERN

**D5394-7 BRACKET
(MAKE FROM D5394-7F)**

NOTES:

- 1) MATERIAL: AISI 303/304/316 STAINLESS STEEL SHEET, 0.080 THK, ANNEALED 2B FINISH
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240
REF. DART SPEC M304S14GA OR M303S14GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.03 lbs

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2016-02-08

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